

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

KANEKA CORPORATION

Plaintiff,

VS.

JBS HAIR, INC., ET AL.

Defendants.

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NO. 3-10-CV-1430-P-BD

**FINDINGS AND RECOMMENDATION OF THE
UNITED STATES MAGISTRATE JUDGE**

In this patent case, plaintiff and defendants seek construction of certain disputed claim terms. Having considered the claim language, the patent specification, the prosecution history, and the other evidence and briefing submitted by the parties, the magistrate judge issues the following claim construction recommendation:

I.

Plaintiff Kaneka Corporation is the owner by assignment of two related patents that claim a flame-retardant polyester fiber for artificial hair used in wigs, braids, and hair extensions. (*See* Def. Cl. Constr. App. at 56-78, 79-101). U.S. Patent No. 7,759,429 ("the '429 Patent") claims a fiber made from a polyester and brominated epoxy flame retardant that mimics many properties of human hair, including luster, hue, texture, and bulkiness. (*Id.* at 62, col. 1, ll. 17-33). U.S. Patent No. 7,759,430 ("the '430 Patent") is a continuation-in-part of the '429 Patent and claims a hair product comprised of the same flame-retardant polyester fibers. (*Id.* at 99, col. 29, l. 14 - col. 30, l. 2). In this lawsuit, plaintiff alleges that certain hair products manufactured and sold by defendants under the brand name "NATURA" infringe one or more claims of the '429 and '430 Patents. (*See* Plf. Sec.

Am. Compl. at 2-3, ¶ 10). Defendants deny any infringement and maintain that the patents-in-suit are invalid for a variety of reasons.

II.

The threshold issue in any patent infringement case is claim construction. "A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using, or selling the protected invention." *Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). Claim construction is a question of law for the court to decide. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372, 116 S.Ct. 1384, 1387, 134 L.Ed.2d 577 (1996). The words of a claim "are generally given their ordinary and customary meaning." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005), *cert. denied*, 126 S.Ct. 1332 (2006), *quoting Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Ordinary and customary meaning is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention[.]" *Id.* at 1313. When the ordinary and customary meaning of a term is not readily apparent, "the court looks to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" *Id.* at 1314, *quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004). Those sources include the words of the claims themselves, the patent specification, the prosecution history, and extrinsic evidence. *Id.*; *see also Vitronics*, 90 F.3d at 1582.

The ordinary meaning of a claim term cannot be determined in a vacuum. *Phillips*, 415 F.3d at 1315; *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005). Rather, patent claims "must be read in view of the specification, of which they are a part." *Phillips*, 415 F.3d at 1315, *quoting Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*,

116 S.Ct. 1384 (1996). The specification is always highly relevant to the claim construction analysis and, thus, is the primary basis for construing the claims. *Id.* The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication. *Vitronics*, 90 F.3d at 1582. The court may also consider the prosecution history in determining the meaning of disputed claim terms. *Id.* at 1582-83; *see also CVI/Beta Ventures, Inc. v. Tura LP.*, 112 F.3d 1146, 1158 (Fed. Cir. 1997), *cert. denied*, 118 S.Ct. 1039 (1998). The prosecution history contains a complete record of all proceedings before the Patent and Trademark Office ("PTO"), including any express representations made by the applicant regarding the scope of the claims. *Vitronics*, 90 F.3d at 1582. Because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and may be less useful for claim construction purposes. Nonetheless, "the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317, *citing Vitronics*, 90 F.3d at 1582-83.

While most patent claims can be construed solely on the basis of intrinsic evidence, extrinsic evidence may be considered "for background and education on the technology implicated by the presented claim construction issues." *Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998). Extrinsic evidence consists of all evidence external to the patent and the prosecution history, including expert and inventor testimony, dictionaries, and learned treatises. *Markman*, 52 F.3d at 980; *see also Vitronics*, 90 F.3d at 1583. Although extrinsic evidence is generally less reliable and less probative than intrinsic evidence, it may assist the court in better understanding the underlying technology and the way in which one skilled in the art might use the claim terms.

Phillips, 415 F.3d at 1318. However, the court must discount any extrinsic evidence "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Id.*, quoting *Key Pharm.*, 161 F.3d at 716.

III.

In their claim construction briefs, the parties seek construction of two claim terms: (1) "60% or less of human hair," which appears in claim 1 of the '430 Patent; and (2) "Rz ten point average roughness," which appears in claim 6 of the same patent. With respect to the first disputed term, plaintiff contends that "60% or less of human hair" means "between 0% and 60% of human hair." (See Plf. Cl. Constr. Br. at 2, 4-5). Defendants argue that the term should be construed to require at least some minimal amount of human hair. (See Def. Cl. Constr. Br. at 2-4). Plaintiff contends that the second disputed term, "Rz ten point average roughness," means "the sum of the respective heights of the five highest peaks from the average line and the respective depths of the five lowest troughs (or valleys) from the average line within a reference length of 80 μ m, divided by five." (See Plf. Cl. Constr. Br. at 10-11). Defendants argue that the term is indefinite as a matter of law. (See Def. Cl. Constr. Br. at 15-18). The claim construction issues have been fully briefed by the parties, and the court will address the disputed claim terms in turn.¹

A.

Claim 1 of the '430 Patent reads:

¹ Defendants have filed a motion for leave to file a surreply to plaintiff's claim construction brief. Because the proposed surreply does not raise matters that would materially alter the court's analysis, the motion [Doc. #128] is denied. See *John Crane Prod. Solutions, Inc. v. R2R and D, LLC*, No. 3-11-CV-3237-D, 2012 WL 1605553 at *1 n.1 (N.D. Tex. May 8, 2012).

A hair product comprising flame retardant polyester fiber and *60% or less of human hair*, the fiber comprising 100 parts by weight of (A) a polyester made of one or more of polyalkylene terephthalate or copolymer polyester, which comprises polyalkylene terephthalate as a main component, and 5 to 30 parts by weight of (B) a brominated epoxy flame retardant.

(Def. Cl. Constr. App. at 99, col. 29, ll. 14-20) (emphasis added). The parties' fundamental disagreement regarding the term "60% or less of human hair" is whether the claim language requires any human hair at all. Plaintiff contends that the ordinary and customary meaning of "60% or less" includes the possibility of 0% -- or no -- human hair. (See Plf. Cl. Constr. Br. at 4). Defendants argue that the claim requires *some* minimum amount of human hair. (See Def. Cl. Constr. Resp. Br. at 3-5).

The plain language of claim 1 requires "[a] hair product comprising flame retardant polyester fiber *and* 60% or less of human hair[.]" (See Def. Cl. Constr. App. at 99, col. 29, ll. 14-15) (emphasis added). The construction proposed by plaintiff would essentially read the disputed term out of the claim language and could result in a product containing only the flame-retardant polyester fiber. Such a construction would be untenable. See, e.g. *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1557 (Fed. Cir. 1995), *cert. denied*, 116 S.Ct. 2554 (1996) (court must give meaning to all terms of the claim); *Gummow v. Splined Tools Corp.*, No. 3-03-CV-1428-L, 2004 WL 893436 at *3 (N.D. Tex. Apr. 26, 2004), *rec. adopted*, 2005 WL 525405 (N.D. Tex. Mar. 3, 2005) (same).

A construction that requires some minimum amount of human hair is also consistent with the prosecution history of the '430 Patent. As originally drafted, claim 1 did not include any limitation regarding, or reference to, human hair. Instead, the patent claimed only:

A flame retardant polyester fiber for artificial hair, formed from 100 parts by weight of (A) a polyester made of one or more of

polyalkylene terephthalate or copolymer polyester, which comprises polyalkylene terephthalate as a main component, and 5 to 30 parts by weight of (B) a brominated epoxy flame retardant.

(See Def. Cl. Constr. App. at 148) (emphasis added). In response to a PTO Office Action rejecting the language of claim 1 as unpatentable, plaintiff amended the claim to read, "*A hair product comprising flame retardant polyester fiber and 60% or less of human hair.*" (See *id.* at 173) (emphasis added). Plaintiff told the PTO that "Claim 1 has been amended to incorporate the feature of a hair product which comprises a flame retardant polyester fiber *and human hair.*" (See *id.* at 182) (emphasis added). Now, plaintiff contends that the added limitation and the explanation accompanying the amendment are vague and amenable to more than one interpretation, including an interpretation that human hair is not required. (See Plf. Cl. Constr. Br. at 8, 10). The court disagrees. An interpretation that does not require human hair is no different than the claim as originally drafted and would make the added limitation completely meaningless. See *Cat Tech LLC v. TubeMaster, Inc.*, 528 F.3d 871, 885 (Fed. Cir. 2008) (refusing to adopt a claim construction which would render a claim limitation meaningless); *Mannatech, Inc. v. Glycobiotics Int'l, Inc.*, 513 F.Supp.2d 754, 760 (N.D. Tex. 2007), citing *Power Mosfet Tech., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed. Cir. 2004) (interpretations that render some portion of the claim language superfluous are disfavored). Plaintiff's argument that the PTO did not rely on its prosecution statements to overcome the rejection of claim 1 is also inapposite. Whether the PTO ultimately allowed the claim based on plaintiff's statements or some other evidence of the claimed invention's improvements over prior art, the claim itself requires human hair. The court cannot ignore the plain language of the claim. See *Becton, Dickinson and Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1257 (Fed. Cir. 2010), quoting *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("Claims must be 'interpreted with an eye toward giving effect to all terms in the claim.'"). Thus, the

court should construe the term "60% or less of human hair" to mean "60% or less -- but more than 0% -- of human hair."

B.

Claim 6 of the '430 Patent reads:

The hair product according to claim 2 or claim 3, wherein the projections on the fiber surface which obtained as *Rz ten point average roughness* have a range of 0.5 to 2.0 μm .

(Def. Cl. Constr. App. at 101, col. 33, ll. 1-3) (emphasis added). The term "Rz ten point average roughness" refers to the surface texture of the claimed fiber, calculated by a formula, which both parties agree is simply the average of the five highest peaks and five deepest troughs on the surface of the fiber within a specified reference length. (*See id.* at 90, col. 11, l. 59-col. 12, l. 3; Plf. Cl. Constr. Br. at 10-11; Def. Cl. Constr. Br. at 5). However, the parties disagree as to *what reference length* is specified. Defendants contend that the term "Rz ten point average roughness" is indefinite as a matter of law because the patent fails to identify with particularity the reference length necessary to perform the calculation. (*See* Def. Cl. Constr. Br. at 6). Plaintiff maintains that the reference length can be inferred from the specification. (*See* Plf. Cl. Constr. Br. at 10-11).

A claim term is indefinite only if it is "not amenable to construction" or "insolubly ambiguous." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005); *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). "[C]laims are not indefinite merely because they present a difficult task of claim construction." *Halliburton Energy Serv., Inc. v. M-I LLC*, 514 F.3d 1244 (Fed. Cir. 2008); *see also Exxon*, 265 F.3d at 1375. Rather, a court may find a claim term indefinite only if reasonable efforts at claim construction prove futile. *See Datamize*, 417 F.3d at 1347. "If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree,

... the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds." *Exxon*, 265 F.3d at 1375; *Halliburton*, 514 F.3d at 1249. "[C]lose questions of indefiniteness in litigation involving issued patents are properly resolved in favor of the patentee." *Bancorp Serv., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004); *see also Board of Regents of the Univ. of Texas Sys. v. Benq America Corp.*, No. A-05-CA-181-SS, 2006 WL 6112210 at *10 (W.D. Tex. Jul. 14, 2006) (noting that "the standard for establishing indefiniteness is extremely high").

In this case, the term "Rz ten point average roughness" is amenable to construction. The specification explains that surface roughness is "measured using a laser microscope, calculated based on a calculating formula as defined in JIS B0601-1994 and evaluated by Rz (ten point average roughness)." (Def. Cl. Constr. App. at 90, col. 11, ll. 59-67). JIS B0601-1994, the Japanese industry standard for calculating surface roughness, includes a formula for determining "Ten spot average roughness Rz." (Plf. Cl. Constr. App. at 38; Def. Cl. Constr. App. at 147). The standard lists a series of reference lengths for Rz, including 0.08 mm, 0.25 mm, 0.8 mm, 2.5 mm, and 8 mm. (*Id.*). Although defendants argue that the specification fails to provide any method for determining which of these several reference lengths should be used to determine "Rz ten point average roughness," the declaration of Dr. Martin I. Jacobs, an expert in polymer science and technology, explains how the '430 Patent resolves this apparent ambiguity:

The '430 Patent provides specific directions on how to measure surface roughness, including the specific laser microscope and magnification used.

Surface roughness was measured using a laser microscope (VK-9500, manufactured by Keyence Corp.). The sides of 10 fibers in parallel with the fiber axes were measured at a magnification of 3,000 (objective lens magnification: 150× built-in lens magnification: 20) to obtain an image. Surface roughness was calculated from this image based on a

calculation formula in accordance with the definition of surface roughness (JIS B0601-1994).

According to the specifications of the Keyence VK-9500 laser microscope, the "observation/measuring range" at the specified magnification of 3000 (objective lens 150x) is 90 μm (horizontal) by 67 μm (vertical). Thus, at the magnification specified in the '430 Patent, the field of view of this laser microscope is limited to a 90 μm by 67 μm window. This is readily appreciated by a person of ordinary skill in the art after reviewing the specifications of the laser microscope.

A person of ordinary skill in the art would also appreciate that the reference length used to measure the Rz ten point average roughness must fit within the 90 μm by 67 μm field of view of the Keyence VK-9500 laser microscope. By cross-referencing this prerequisite with the reference lengths listed in JIS B 0601 (1994), it should be clear to a person of ordinary skill in the art that the '430 Patent specifies a reference length of 0.08 mm (80 μm) to be used to determine Rz ten point average roughness.

(Plf. Cl. Constr. Resp. App. at 49, ¶ 12-14).

Defendants object that the '430 Patent does not specifically disclose 80 μm as the required reference length, and that such length can only be determined after several steps by reliance on extrinsic evidence. (*See* Def. Cl. Constr. Resp. at 13-14). This objection is without merit. There is no requirement that claims be plain on their face in order to avoid a finding of indefiniteness. *See Exxon*, 265 F.3d at 1375. If the disputed term can be construed at all, then it is not indefinite, no matter how many steps are required to arrive at a construction. *See id.*, 265 F.3d at 1375 (courts should reject indefiniteness argument where claims are amenable to construction, "however difficult that task may be"); *Honeywell Int'l, Inc. v. Int'l Trade Comm'n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003) (same).

It is undisputed that the specification directs those skilled in the art to JIS B0601-1994 to determine "Rz ten point average roughness," and that JIS B0601-1994 contains several possible

reference lengths. (*See* Def. Cl. Constr. Resp. Br. at 17). Dr. Michael S. Ellison, defendants' claim construction expert, concedes that using the field of view of a microscope is one method of selecting a reference length. (*See* Def. Cl. Const. Resp. App. at 3, ¶ 9). The example in the '430 Patent specification describes using the Keyence VK-9500 laser microscope to measure surface roughness. (*See* Def. Cl. Constr. App. at 93, col. 18, ll. 8-16). Thus, the specification provides sufficient clues to discern the required reference length. *See Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.*, 554 F.3d 1010, 1022 (Fed. Cir.), *cert. denied*, 130 S.Ct. 624 (2009) (claim not indefinite where example in specification describes particular method for performing calculation). That Dr. Ellison arrives at a different conclusion than Dr. Jacobs does not render the claim indefinite. *See Exxon*, 265 F.3d at 1375 (claim not indefinite even though construction is "one over which reasonable persons will disagree"). The court should accept plaintiff's proposed construction and construe the term "Rz ten point average roughness" to mean "the sum of the respective heights of the five highest peaks from the average line and the respective depths of the five lowest troughs (or valleys) from the average line within a reference length of 80 μ m, divided by five."

RECOMMENDATION

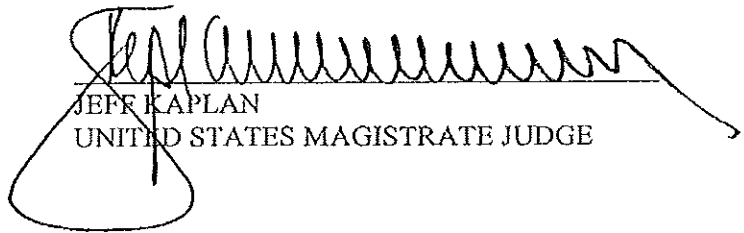
The court should construe the following disputed terms of the '430 Patent as follows:

- (a) the term "60% or less of human hair" means "60% or less -- but more than 0% -- of human hair;" and
- (b) the term "Rz ten point average roughness" means "the sum of the respective heights of the five highest peaks from the average line and the respective depths of the five lowest troughs (or valleys) from the average line within a reference length of 80 μ m, divided by five."

A copy of this report and recommendation shall be served on all parties in the manner provided by law. Any party who objects to any part of this report and recommendation must file

specific written objections within 14 days after being served with a copy. *See* 28 U.S.C. § 636(b)(1); FED. R. CIV. P. 72(b). In order to be specific, an objection must identify the specific finding or recommendation to which objection is made, state the basis for the objection, and specify the place in the magistrate judge's report and recommendation where the disputed determination is found. An objection that merely incorporates by reference or refers to the briefing before the magistrate judge is not specific. Failure to file specific written objections will bar the aggrieved party from appealing the factual findings and legal conclusions of the magistrate judge that are accepted or adopted by the district court, except upon grounds of plain error. *See Douglass v. United Services Automobile Ass'n*, 79 F.3d 1415, 1417 (5th Cir. 1996).

DATED: June 14, 2012.



JEFF KAPLAN
UNITED STATES MAGISTRATE JUDGE